

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An integrated circuit with an oscillator, comprising:
a switch control having a reference input and an output, the output being derived from a relationship of the reference input and a value of a timing element supplied to the switch control;
a plurality of current sources switchably connected to the timing element and for providing a second timing rate for the timing element, the second timing rate and a first timing rate determining an oscillation period of the oscillator;
a switching circuit connected to the output of the switch control and being operable to select which of the plurality of current sources is connected to the timing element ~~and being further operable to cause the connection based on the output of the switch control to provide the~~ second timing rate; and
~~the connection of the selected current source influencing the value of the timing element to modify the output of the oscillator.~~
wherein the output of the switch control causes the switching circuit to connect the selected current source to the timing element during each oscillation period.
2. (Previously Presented) The circuit according to claim 1, wherein the switch control is a comparator having a voltage reference input.

Claim 3 (Canceled).

4. (Previously Presented) The circuit according to claim 1, further comprising a reference voltage input to the switch control, the reference voltage influencing a point at which the selected current source is connected to the timing element.

Claim 5 (Canceled).

6. (Previously Presented) A method for operating an oscillator, comprising:
charging a capacitor at a first rate to obtain a first time interval;
charging the capacitor at a second rate to obtain a second time interval;
combining the first time interval and the second time interval and thereafter discharging the capacitor to obtain an oscillation frequency; and
varying at least one of the first and second time intervals to change a corresponding oscillation frequency.
7. (Original) The method of claim 6, further comprising comparing a reference value to a charging value to influence the timing intervals.
8. (Original) The method according to claim 6, further comprising switching a circuit parameter to modify at least one of the first and second timing interval.
9. (Currently Amended) A circuit for providing a plurality of oscillator output values, comprising:
a timing component for providing a variable timing interval;
a plurality of timing sources ~~for influencing~~ switchably connected to the timing component to vary the timing interval provide a second timing interval for the timing component, the second timing interval and a first timing interval determining an oscillation period of the output value;
a switch for ~~switching selecting between~~ which of the plurality of timing sources to connect to the timing element to vary provide the second timing interval based on cumulative timing sources; and
a switch control for controlling when during each oscillation period the switch to thereby control the timing interval based on connects the selected timing sources to the timing element to provide the second timing interval.

10. (Original) The circuit according to claim 9, wherein the switch control is a comparator with a reference value input.

11. (Previously Presented) The circuit according to claim 9, wherein the timing component is a capacitor and the timing sources are current sources that impact a charging time of the capacitor.

12. (Original) The circuit according to claim 11, further comprising a discharging current source for discharging the capacitor.

13. (Currently Amended) A circuit with an oscillator output, comprising:

a plurality of current sources for providing ~~a first slope and a second slope~~, the second slope and a first slope forming portions of a waveform determining a period of the oscillator output;

a switch for switching among the plurality of current sources to produce ~~the first slope or the second slope~~;

a timing device output determined by the first slope; and

a reference value for comparison with the timing device output to produce a control output, the control output being operable to influence the switch to select the second slope.